RECEIVED
CENTRAL FAX CENTER

MAR 2 6 2007

REMARKS

I. INTRODUCTION

In response to the Office Action dated December 27, 2006, claims 1, 13, 17 and 19 have been amended. Claims 1 and 3-20 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. PRIOR ART REJECTIONS

On pages (3)-(16) of the Office Action, claims 1, 3-6, 8-10 and 13-20 were rejected under 35 U.S.C. §102(e) as being anticipated by , or in the alternative under 35 U.S.C. §103(a) as being obvious in view of, U.S. Patent 6,675,159 (Lin). On pages (16)-(18) of the Office Action, claims 7, 11 and 12 were rejected under 35 U.S.C. §103 as being obvious in view of the combination of Lin and U.S. Patent 5,933,822 (Braden-Harder).

Applicants' attorney respectfully traverses these rejections.

Applicants' independent claims have been amended to recite how a post-processing stage is performed by applying the grammar to a query to convert the query to one or more concepts and mapping the concepts to the concept labels that match the concepts, wherein the query is normalized, the normalized query is parsed and converted into fragments according to a feature lexicon, the fragments are inflated by selectively merging state information provided by a session service with a meaning representation for the query, and the inflated fragments are converted into a meaning resolution through a meaning resolution stage that determines whether there is a valid interpretation of a key-value grouping of each of the fragments, such that the meaning resolved fragments are associated with the concepts.

Lin does not teach or suggest similar limitations. Instead, Lin describes a concept-based indexing and search system that indexes collections of documents with ontology-based predicate structures through automated and/or human-assisted methods. The system extracts the concepts behind user queries to return only those documents that match those concepts. The concept based search and retrieval system comprehends the intent behind a query from a user, and returns results matching that intent. The system can perform off-line searches for unanswered user queries and notify the user when a match is found.

However, Lin does not describe the same processing of queries as recited in Applicant's independent claims. Instead, Lin only describes a sentence lexer 122, post-lexer filters 123, a parser 124 and post-parser filters 125, wherein the sentence lexer 122 transforms input sentences into part-

of-speech-tagged instances of concepts from an ontology 128, the post-lexer filters 123 are employed to prune out some of the sequences based on rules about sequences of syntactic tags, the parser 124 creates syntactic tree structures that represent the grammatical relations between the ontological concepts, based on the syntactic tags attached to the concepts, and the post-parser filters 125 are used to eliminate parse trees based on rules about improbable syntactic structures, and rules about conflicting ontological specifications.

Consider, for example, the discussion from Lin set forth below:

> Lin: column 21, line 40 – column 21, line 20
>
> The following is an example of a sentence and demonstrates both how it is parsed as a sentence within a document (for storage within the data repository 150), and how a question would produce matching predicates to retrieve the document containing this sentence.
>
> The example sentence is:
>
> The octopus has a heart.
>
> First, the sentence lexer 122 would process this sentence. The first component of the sentence lexer 122, the document iterator 210, would extract this sentence from the document it was contained in. At this stage, it would exist as the text string shown above. Following that, it would be passed to the lexer 122, which would access the ontology 128, and return the sequence:
>
> The-det octopus-noun have-verb a-det heart-noun.
>
> Here, "det" stands for determiner, which is a word with a purely grammatical function, namely specifying a noun phrase. The other tags, noun and verb, indicate parts of speech with ontological content. Thus, when the sentence passes through the lexer filters 123, the stop WordFilter removes "a" and "the", leaving:
>
> octopus-noun have-verb heart-noun
>
> The sentence is then taken up by the sentence receiver 310, which passes it to the parser 124. In the parser 124, the following tree shown in FIG. 11.
>
> A parse tree converter 450 then converts this tree into a predicate, where octopus is the subject of have, and heart is the object. The predicate is:
>
> have<octopus, heart>
>
> This predicate is then passed through the parser filters 125, where it successfully passes the parse probability and selectional feature compatibility tests. After that, it is stored in a predicate library, and passed to the data repository 150.
>
> Suppose that a user asks the question, "Do octopuses have hearts?"
>
> The question will be read by the sentence lexer 122, and a sentence made of ontological entities is produced. It reads:
>
> Do-verb octopus-noun have-verb heart-noun
>
> In the lexer filters 123, the PseudoPredicateFilter removes the first verb, "do", because it is not the main verb of the sentence. "Do" only serves to fill a grammatical role within this type of question, and is thus removed, leaving:
>
> octopus-noun have-verb heart-noun
>
> This is identical to the sentence produced above, and results in the same parse tree, and the same predicate structure. Thus, when the query ontological parser

120 receives this question, it will enable the data repository 150 to find the document containing the sentence originally discussed.

The above portions of Lin recite a different sequence of functions than those recited in Applicant's claims. Consequently, the method of generating matches for the concept labels recited in Applicants' claims is significantly different from the method of matching the ontology-based predicate structures described in Lin.

Braden-Harder fails to overcome these deficiencies of Lin. Recall that Braden-Harder was only cited against dependent claims 7, 11 and 12, and only for teaching document location identifiers that are universal resource identifiers.

Thus, Applicants' attorney submits that independent claims 1, 13, 17 and 19 are allowable over Lin. Further, dependent claims 3-12, 14-16, 18 and 20 are submitted to be allowable over Lin and/or Braden-Harder in the same manner, because they are dependent on independent claims 1, 13, 17 and 19, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 3-12, 14-16, 18 and 20 recite additional novel elements not shown by Lin and/or Braden-Harder.

III. CONCLUSION

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

GATES & COOPER LLP
Attorneys for Applicants

Howard Hughes Center
6701 Center Drive West, Suite 1050
Los Angeles, California 90045
(310) 641-8797

Date: March 26, 2007

By: _____
Name: George H. Gates
Reg. No.: 33,500

GHG/